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BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

IN RE: 5-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY, BEAR CANYON MINE, EMERY COUNTY, UTAH	**PROFFER OF WATER USERS PER REQUEST OF THE BOARD** **Cause No. ACT/015/025** **Docket No. 95-025**

Castle Valley Special Service District ("Castle Valley"), North Emery Water Users Association ("NEWUA") and Huntington-Cleveland Irrigation Company ("Huntington-Cleveland") (collectively, "Water Users"), by and through their respective attorneys, Jeffrey W. Appel and W. Herbert McHarg of Appel & Warlaumont, and J. Craig Smith of Nielsen & Senior, respectfully submit this Proffer as requested by the Board of Oil, Gas and Mining ("Board").

Per the request of the Board this Proffer addresses: (1)

information that the Water Users would have presented during the Tank Seam hearings had Water Users known that a determination would be reached on the Blind Canyon Seam and had they not been specifically informed it would not be at issue; and (2) new information and evidence that must be considered by the Board specifically concerning the Blind Canyon Seam. It should be noted that the existence of this information as well as the Division of Oil, Gas and Mining ("Division") ruling below also prevents Water Users from being barred by collateral estoppel. Much of this evidence was addressed at length in Objector's Joint Post Informal Conference Memorandum and Closing Argument which is attached and incorporated herein.

In a de novo review situation as is statutorily required here, the evidence must be heard in the context of what is at issue and now exists. It is important that Water Users concerns be heard and due process requires that result.

I. EVIDENCE THAT WATERS USERS WOULD HAVE PRESENTED DURING THE TANK SEAM HEARINGS

Water Users would have presented a very different case had they known that the Division's ruling would include findings and conclusions regarding the Blind Canyon Seam. However, because the Board, the Division and Co-op successfully limited the scope of the hearing to the impacts created by proposed mining of the Tank Seam, the Water Users were prohibited from presenting all evidence regarding the hydrologic effects of mining in the Blind Canyon

seam. Also, projections of impacts down gradient from the Tank Seam mining efforts, the paucity of information available from the Co-op monitoring wells and the illegal activities of Co-op now known were not presented. Of course, much of the injury that would occur by wooden application of the collateral estoppel doctrine is rooted in the overall chilling effect on the participants presentation of the case and examination of witness, as well as responses to questions from members of the Board, which are difficult to quantify. In addition, to the extent it may be reconstructed after the fact, the following evidentiary issues are noted:

1. Evidence of groundwater flow elevations for the Lower Blackhawk Formation/Spring Canyon Sandstone aquifer and the projected intercept with the floor of the Blind Canyon Seam. The groundwater surface was projected using information from the Co-Op Mine permit. The intercept between the groundwater surface and the Blind Canyon Seam is precisely where water is currently entering the mine.[1] This would have established that Co-Op had been intercepting the groundwater table as mining continues northward, and is important because the flows that enter the mine are decreasing over time as the groundwater interface is artificially dewatered by mining and the groundwater interface declines below the floor of the coal seam. In other words, the impact already was

[1] It should be noted this mine was virtually dry when first permitted. It now discharges an average of 100 gpm of water.

occurring and had occurred. Furthermore, the evidence would have shown that mining intercepted the groundwater flow to the south and that those flows declined or ceased as dewatering of the groundwater system occurred further north, and would have demonstrated the existence of unreported in-mine and out of mine movements of intercepted water.

2. The geochemical, radiometric and stable isotope data indicate that several flow systems exist in the area. Evidence would have been presented to show that discharge associated with Birch Spring is different than most of the water entering the Blind Canyon Seam and discharging at Big Bear Spring.

3. Evidence that mining in the area has in the past dewatered a groundwater system and has caused lower spring discharge within one year following mining.

4. Information on the dates Co-op intercepted water flow in the mine and the quantity of flow. The Co-op intercepted about 100 gallons per minute in the mine in August of 1989. Information the Co-op submitted to DOGM verifies this data but it has never been considered or acknowledged by DOGM. This flow of water has been continuous and has always been reported at over 90 gpm. Therefore, the water is not a perched aquifer which drains over a period of several months, as the mining operation advances. It is an active natural system that was running to the springs until they intercepted it. Spring flow has never recovered since August of 1989. This is extremely important because it disproves the Co-op

and DOGM theory that the only water encountered in the mine is perched aquifers that dry up. Instead it is a continuous flow that has never dried up and has impacted the flow to the springs.

5. Letter from DOGM concerning Co-op's unauthorized and illegal discharge of water into the abandoned mine working in the Blind Canyon Seam. In the Tank Seam hearings a great deal of time was spent discussing the icicle formation above Big Bear Spring and the water quality impact on Big Bear Spring. We now know these problems were caused by Co-op's discharge of water into the abandoned mine workings on the south end of the mine. This has been verified by an inter office memo from DOGM dated May 17, 1991. It is important to note the date on DOGM's letter. It knew about this throughout the Tank Seam Hearing and failed to come forward with the information. This water impacted the water quality of Big Bear Spring and caused the icicle formation.

6. Furthermore, evidence of additional surface flow measurements in McCadden Hollow, Tie Fork Canyon, Gentry Hollow, and Wild Cattle Hollow would indicate areas of stream loss and groundwater recharge to the strata underlying Gentry Ridge. In addition the evidence would have shown that precipitation falling on the Ridge is the source of the water encountered by the mine. It does not come from some unknown recharge area far upgradient as stated by Co-op.

7. Fracture and joint density and orientation data would have been presented during the hearing to indicate the intensely

fracture nature of the rock formations in CO-OP mine permit area which allows movement of water to the springs..

II. NEW INFORMATION AND DATA

As they are by law entitled to do at the time of permit renewal, the Water Users will present new evidence to support the Water Users position that Co-Op's mining operations are hydrologically connected to the Springs, that the PHC is flawed, inaccurate and based on outdated theories, and that mining activities do not comply with current environmental protection standards. The evidence will include, but would not be limited to, the following:

1. Evidence that the Gentry Mountain groundwater system is interconnected from top to bottom. The Division's July 20, 1994 Technical Analysis and permit revision approval incorporated the Cumulative Hydrologic Impact Assessment ("CHIA") for the Gentry Mountain Area. See Division Order at 3 ¶ 2. The CHIA finding quoted in the Division's Order implied that the mine and the Springs are not hydrologically connected. Id. The Division's Order indicates no understanding of or inquiry into the location of the recharge area for the water arising in the Water User's springs. Evidence presented by the Water Users, including evidence regarding the fractured nature of the entire system, will enable the Board to conclude that there is no difference in the recharge location for the water from Birch Spring, Big Bear Spring, and the mine -- all are recharged from precipitation falling on Gentry

Mountain. Significantly, all experts who testified at the informal conference agreed that Gentry Mountain provides the recharge for both water in the mine and the springs.

2. At the informal conference, for the first time and in direct contravention of its statements made at the time of renewal in 1990-1991, Co-Op admitted it pumped vast quantities of water intercepted at the working face of the mine into a worked-out portion of the mine and elsewhere during period from the 1989-1992. See HT III. at 25; 217-238; 250; 292. Evidence disclosed to the Division, but not made public supports the long maintained position of the Water Users that this pumping created the anomalously high flows and water quality problems experienced at Water Users sources during this period of time. The import of this admission is that the mine is hydrologically connected to the springs. Yet, Co-op and the Division withheld this information and the Division ignored both the admission and the evidence below. This evidence would affirmatively establish that water inside the mine does in fact communicate with the springs of the Water Users.

3. Water Users will present evidence that Co-Op's dumping of water into the old workings contaminated Big Bear Spring demonstrating an interconnection. Much of this evidence was presented at the informal conference and was discussed in detail in the Water User's Joint Post Informal Conference Memorandum and Closing Argument (See attached at pages 9-12). Despite this evidence, however, the Division Order found that "the pumping of

water out of the mine into a surface drainage above Birch Spring does not demonstrate the hydrologic connection of water in the mine to Birch Spring. . . ." Division Order at 7 ¶ 18. The Order does not address impacts to Big Bear Spring in the context of prior events demonstrating interconnection, nor does it deal at all with the core issue of communication and interconnection between mine working and the Springs.

4. Water Users will present additional evidence establishing the communication with and interconnection between the mining operations and the Springs. The evidence will show the following:

a. New and additional Geochemical and Radiometric Sampling was conducted at springs and mine inflow locations in accordance with a Division Order. Several large volume springs in the vicinity of Bear Canyon were sampled for major cations, anions, trace metals, and radiometric and stable isotopes. The list of springs includes Big Bear Spring, Little Bear Spring, Birch Spring, Lower Tie Fork Spring, Upper Tie Fork Spring, and two unnamed springs located north of Bear Canyon on Gentry Mountain. The sampling indicates that most of the water in the groundwater system was modern to slightly premodern water. Carbon-14 dates of Birch Spring water were the oldest sampled in the area and suggests that the Pleasant Valley Fault may serve as a hydrologic barrier.

b. Mine inflow samples were collected by the Water Users and by Co-Op for major cations, anions, trace metals,

and radiometric and stable isotopes. The samples from inside the mine were generally modern to premodern except for samples collected near the Dry Canyon Fault (Pleasant Valley Fault System). This showed that the water in this area may be different from water east of the fault system. This would include water encountered in the Blind Canyon Seam.

c. A groundwater flow model was presented by the Water Users showing that the water intercepted by Co-Op in the Blind Canyon Seam is the result of the interception of the water table tributary to the lower Blackhawk/Star Point Sandstone aquifer. Groundwater elevations from Co-Op and Plateau groundwater monitoring wells completed in the Spring Canyon Sandstone Member of the Star Point Sandstone and in the Lower Blackhawk Formation were used to prepare the groundwater surface. The intercept line between the floor of the Blind Canyon Seam and the water table in the Lower Blackhawk/Spring Canyon Sandstone was projected on an outline of the current mine layout in the Blind Canyon Seam. The intercept between the coal seam and the water table coincided with the locations where groundwater flows into the mine. Evidence will support that this is the correct model for groundwater movement and resultant inflow into the mine.

d. Precipitation data collected from eight meteorological stations in the are indicates that cyclic changes in precipitation are common and that the long-term

precipitation trend is neither increasing nor decreasing, but remains nearly constant. The average of total monthly precipitation prior to August 1989 was 1.75 inches. Precipitation since August 1989 has averaged 1.85 -- a 6% increase. Thus, dewatering is not a function of the precipitation variable as suggested by Co-op.

e. A connection between precipitation (spring runoff) and spring discharge is observed if you sequentially compare the data. If average monthly precipitation is compared to average monthly flows at Big Bear Spring and Little Bear Spring (a reasonable control due to its location on the other side of the Canyon), the discharge of both Springs generally follows changes in precipitation prior to 1985. Co-op encountered significant flows of water in 1989 and consistently thereafter. The evidence will show that after 1989, the discharge of Big Bear Spring did not follow changes in precipitation while Little Bear Spring continued to follow precipitation changes. Furthermore, the data will show that Big Bear Spring discharge has decreased by 71% since 1989 while precipitation has increased by 6%. The data that has become available since the last renewal proceeding documents the impact of mining.

f. Birch Spring showed nearly constant spring flow during the period of record and only a very modest decline following the decline in precipitation in 1985. The flow

spike and subsequent decline in flow occurred after groundwater was intercepted in the Blind Canyon Seam and after Co-Op discharged mine water into Dry Canyon. Birch Spring discharge has declined significantly since 1989, as compared to flows prior to 1989, while precipitation has increased by 6%. The only known material variable is mining by Co-op.

g. Prior to 1989, spring discharge at Little Bear Spring and Big Bear Spring peaked between April and July. This is approximately 2 to 3 months following spring runoff and peak flow in most of the surface streams. Following 1989, peak flow at Little Bear Spring has continued to follow spring runoff while peak flows at Big Bear Spring have been almost nonexistent. Since Co-Op started discharging into Bear Creek, modest peak flows have occurred in June or July (1992 to present). The peak flows have been intercepted by Co-op's mining efforts.

h. Co-Op has suggested that flows at Big Bear Spring derive from Bear Creek. The Water Users have since measured flow at four locations: (1) Bear Creek-Huntington Creek confluence; (2) below the Panther Sandstone; (3) above the Panther Sandstone; and (4) above the Spring Canyon Sandstone. The data presented from these measurements shows a stream loss of 8 gpm or less. Stream loss would have to be maintained on the order of a constant 100 to 150 gpm to sustain the flows at Big Bear Spring.

i. Since April of 1991 Co-Op has discharged water under their discharge permit into Bear Creek. Discharge levels have ranged from a low of 45 gpm to a high of 318 gpm. The average reported discharge has been 141 gpm. The reported discharges from the mine are very close to the same flows that we have lost from our spring.

5. The Division overlooked the logical reasoning that a CHIA must be inadequate if it is based on a Probable Hydrologic Consequences ("PHC") containing inaccurate and insufficient data. Furthermore, the Division made no attempt to rationally resolve the several co-existent and opposing theories, and included no conditions on its approval of the permit renewal to secure information designed to resolve once and for the divergent theories of water transit in the geologic area in question. Such a resolution is required by law and has yet to occur. The current PHC lacks sufficient information to determine actual impacts and the need for adjustments, and is based on theories that are now outdated and preempted by new theories postulated by Co-Op's own expert before the Division. This being the case, the Board must consider the new information and the evidence Water Users will present. The result should be the requirement that Co-Op obtain indepth and revealing hydrologic data to update and correct the PHC so that the CHIA may be updated. Water Users will present evidence to oppose Co-op's new theories, and to establish the need for additional data to update the PHC and CHIA. Too much has been left

unknown. This evidence would address the following:

a. At the informal conference, Co-Op totally changed its prior position with respect to hydrologic data in the PHC and relied on an entirely new theory postulated by their new expert. The abandoned theory was that the mine was continuing to intercept many small perched aquifers, rather than a major source of groundwater. This theory forms the basis for the current PHC. The new theory rejected the perched aquifer concept and is premised instead upon the notion that the mine intercepts and has intercepted a single broad-based sandstone channel that produces and produced the water in the mine. Despite the fact that significant amounts of water have been encountered since 1989, this theory is not addressed in the PHC because, according to the Co-op, "the initial hydrogeologic evaluation in the PHC did not specifically address the channel because it hadn't been encountered at the time it had been written." Testimony of Chris Hansen, HT III. at 232. Furthermore, Co-Op now estimates that the amount of water discharged by the sandstone channel is a sustained inflow of 2 gpm (which was based upon unverified metered data from Co-Op). The Water Users will present evidence disputing this estimate as well as the viability of the theory that a sandstone channel has produced the water encountered by mining to date (up to 110 gpm).

b. The current PHC describes the stratigraphic sequence

in the mining area as a "great thickness of discontinuous sandstone, coal, and mud/siltstone units." PHC at 2-6. The PHC also states that "[d]rainage of water from faults and fractures produces the largest volume of water flowing into the mine." PHC at 2-33. While that has long been the theory of the Water Users, at the informal conference, Richard White, another expert witness called by Co-Op, testified that this statement in the PHC statement was incorrect, citing the new theory that "the largest volume of water flowing into the mine is from the sandstone channel." HT III. at 260.

In order to determine the viability of these inconsistent, new, and scientifically unsubstantiated theories, data must be collected. It is not in the record from the DOGM. Evidence will be presented to establish the boundaries of the recharge area for the Springs; where the water intercepted by Co-Op's mining operations was destined before it was intercepted; whether the "sandstone channel" is connected to other sources in the Water User's recharge area or otherwise connected to the Springs; and among other conceivable hypothesis, whether the "sandstone channel" interrupts or dips below the Blind Canyon Seam, or as the Division presumed, without adequate evidence, spills out in a "flood plain" lip over the top of the seam only. These facts and the scientific basis therefore represent new issues for the Board and must be properly resolved in the de novo hearing requested by Water Users.

6. Mining activities which re-direct or contaminate water

are in violation of the Environmental Protection Standards set forth at R645-303-233.120. They also damage the hydrologic balance outside the permit area in violation of R645-301-750. As was established at the Informal Conference, when the Bear Canyon Mine was first permitted and during its early years, it was virtually dry. HT III. at 8. However, as mining proceeded to the north, and upgradient into the groundwater table, significant and continuous flows of water were encountered and continue to be encountered today. In February, 1994, Co-Op was assessed penalties by DOGM for failing to take adequate precautions to protect hydraulic resources at its Big Bear Mining operations. Co-Op has previously been cited for violations of requirements dealing with mine openings, subsidence, runoff containment, waste removal, and water monitoring. Though not disclosed to the Board nor the Water Users at the Tank Seam hearing, Mr. Tom Munson, senior reclamation hydrologistfor the Division, had previously recognized that Co-Op's actions had a potential effect on Big Bear Spring. Munson Memorandum to Pamela Grubaugh-Litig, dated May 17, 1991. Testimony at the Informal Conference also established that Co-Op's mining operations have caused contamination, diminution or interruption of Water User's Water Rights recognized by the State of Utah. Water Users will present evidence to show that Co-Op's mining operations have not been, and are not now being conducted to minimize effects to Water User's state appropriated water rights. The water encountered and intercepted by the Co-op mining efforts is

hydrologically connected with Big Bear and Birch Springs, and Water Users will present more evidence to establish a violation of the Environmental Protection Standards and interference with vested water rights.

7. There are numerous false and inaccurate statements in the PHC; therefore, the CHIA as a matter of fact and law fails to properly address the actual cumulative hydrologic impacts of mining. At this point in time, these issues must be resolved by the Board in a de novo proceeding. Water Users have addressed these issues in detail on pages 8 through 21 of Objector's Joint Post Informal Conference Memorandum and Closing Argument (attached). These issues are not susceptible to bar by the doctrine of Collateral Estoppel.

8. In paragraph 15 of the Order, the Division states that "Big Bear Spring's flow rate has also recovered, from a low of 76 g.p.m. in mid-1995 to 148 g.p.m. in late 1996." Division Order at 7 ¶ 15. The Division ignored uncontroverted testimony that prior to Co-op's interception of water by its mining efforts, the Water Users had close to 300 gpm emanating from Big Bear Spring. HT I. at 30. Further evidence would be presented to show that since mining efforts of Co-op began to intercept and divert water, Water Users water sources have been impacted and have never fully recovered. The only legitimately available cause for this impact is the mining efforts of Co-op.

The above evidence is of the character that the Board will hear, and is necessary in order for the Board to fairly, completely, and properly adjudicate the hydrologic effects of mining in the Blind Canyon Seam in accordance with the law and

regulations governing its deliberations.

Summary

Irrespective of the past problems with the full and fair presentation of the Water Users position regarding the currently pending Permit Renewal and the Due Process aspects thereof, much time has passed. New and time tested evidence is available and the issues and controversies regarding impacts of mining on the long held water rights of Water Users is ready to present at a de novo hearing. The legal doctrine of Collateral Estoppel is illsuited and inapplicable to the scenario that is currently before the Board. We wish to present out case regarding mining in the Blind Canyon Seam as we are entitled by law to do. Thank you for your thought, review and consideration.

DATED this 24th day of December, 1997.

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CERTIFICATE OF SERVICE

I hereby certify that on the 24th day of December, 1997, I caused a true and correct copy of the foregoing Proffer of Water Users Per Request Of The Board to be mailed, postage pre-paid, to the following:

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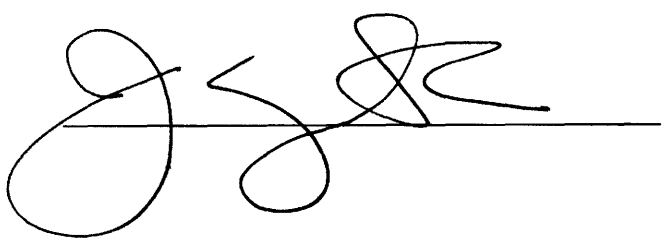

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BEFORE THE DIVISION OF OIL, GAS, AND MINING

DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE FIVE-YEAR PERMIT RENEWAL, CO-OP MINING COMPANY BEAR CANYON MINE EMERY COUNTY, UTAH	))))))	OBJECTORS' JOINT POST INFORMAL CONFERENCE MEMORANDUM AND CLOSING ARGUMENT Docket No. 95-025 Cause No. ACT/015/025

Petitioners Huntington-Cleveland Irrigation Company, North Emery Water Users Association and Castle Valley Special Service District (collectively "Water Users"), by and through their counsel of record, respectfully submit the following Objectors' Joint Post Informal Conference Memorandum and Closing Argument.

INTRODUCTION

Renewal of mining permits such as the permit at issue is governed by R645-303-230, et seq. Of specific importance to this proceeding are R645-303-233.110 which forbids renewal unless the terms and conditions of the existing permit are being satisfactorily met, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, R645-303-233.120 which forbids renewal if coal mining operations are not in compliance with the environmental protection standards in the state program, and R645-303-233.200 which places the burden of proof on the opponents of the renewal.

As will be discussed in detail below, the informal conference held on October 17, 1996, November 8, 1996 and February 28, 1997 revealed that the requirements governing the hydrologic portions of the existing permit are not being satisfactorily met. The same is true for the environmental protection standards. Each of these grounds and the other grounds set forth herein require that the permit of Co-op not be renewed, and mining cease until such time as these requirements can be met.

POINT I

CO-OP HAS ADMITTED THAT THE HYDROLOGIC INFORMATION UPON WHICH THE PERMIT WAS ISSUED IS ERRONEOUS

A permit to mine coal may only be issued upon submission of specific information in the form of a Permit Application. See R645-300-112.400. The Applicant is required to provide specific hydrologic information as set forth in R645-301-700, et seq. This hydrologic information submitted by the Applicant, commonly known as the Probable Hydrologic Consequences or "PHC," forms the basis for the Division's assessment of the probable

cumulative impacts of all anticipated coal mining and reclamation operations on the hydrologic balance and must support the Division's required determination that the operation has been designed to prevent material damage to the hydrologic balance outside the permit area. R645-300-133.400.

During the informal conference, it became obvious that at best the hydrologic information previously submitted by Co-op as part of its permit application under R645-301-700, et seq. is flawed and inaccurate, thus requiring a resubmission of new and corrected hydrologic information prior to permit renewal. Further study and monitoring is required as well.

At the informal conference, Co-op changed its prior position with respect to the hydrologic data submitted as part of its permit application and upon which its permit was granted. A new theory of hydrology was enunciated by Co-op's new consultant--Alan Mayo. That theory, that the mining operation of the Bear Canyon Mine has encountered a sandstone water channel, is totally new and at variance with the hydrologic information previously submitted by Co-op as part of its permit application. The abandoned theory relied upon continuing interception of small perched aquifers, rather than interception of the potentiometric surface, which is Water User's position or an underground water conduit as postulated by Mayo at the recent hearings.

Mayo's testimony is premised on an entirely different theory of hydrogeology than the theory advanced in the PHC. The PHC describes the stratigraphic sequence as a "great thickness of discontinuous sandstone, coal, and mud/siltstone units." PHC at 2-6. In the PHC, Co-Op states:

> Groundwater enters the Blind Canyon Seam of the Bear Canyon Mine through fractures and roof bolt holes. Typically, water encountered by roof bolt holes flows moderately at first. Over a period of one or two months, flow decreases and eventually stops. Sources of these short-lived flows are inferred to be localized perched aquifers which store a limited amount of water.

PHC at 2-13.

The PHC also states that "[d]rainage of water from faults and fractures produces the largest volume of water flowing into the mine." PHC at 2-33.[1] At the recent hearing, Richard White testified that this statement is incorrect, stating that "the largest volume of water flowing into the mine is from the sandstone channel." HT III. at 260. This alone establishes that the hydrogeologic information upon which the permit was issued is erroneous.

According to Mayo, the sandstone "channel" above the mine is "a broad-based channel as well as being a long channel." HT III. at 41. Under his theory, it is this "channel" that is producing all of the water in the mine. Mayo stated that it appears to him "that the Blind Canyon Fault does not transmit water, in other words, acts as a barrier for groundwater which will be in overlying rocks and likely underlying rocks associated with the coal seams. It is likely that the large fault up Bear Canyon is -- also inhibits the flow of groundwater." HT III. at 49.

This "channel" would be classified as an aquifer with water moving through it. HT III. at 89-90. Mayo's testimony indicates that this water originally moved only horizontally, but mining activity has allowed the water to flow vertically. He stated that "I don't believe that those coal seams prior to this mining activity would allow it to be moving much -- to be

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[1] The Revised Hydrogeologic Evaluation went on to state that "[m]ost of the water movement in the study area is through fractures, faults, and partings between the beds." RHE at 2-14.

moving vertically." HT III. 90. The PHC did not address this theory or this particular impact of mining because "the initial hydrogeologic evaluation in the PHC did not specifically address the channel because it hadn't been encountered at the time it had been written." Testimony of Chris Hansen, HT III. at 232.

Mayo also stated he did not know whether the conclusions of the PHC conformed to his conclusions because he had not "reviewed the PHC in terms of "Is this PHC adequate?" HT III. at 94-95. His lack of contact with the prior findings and theories of Co-op led to an entirely new theory of the hydrogeology of the mine and different mine discharge numbers than those contained in the PHC or the CHIA. HT III. at 123. Therefore, his testimony, on its face, attacks the adequacy of the PHC. Of course, Objectors presented an entirely different theory, fully supported in a variety of different ways and by independent methods. Certainly Co-op must be required to resolve these disparities and fully answer all of the hydrologic and hydrogeologic questions prior to the continuation of mining. Unanswered questions and open issues do not meet the legal requirements attendant to this proceeding.

Co-op, through the submission of the expert testimony of Mayo, has admitted that the existing permit was issued upon flawed and inaccurate hydrologic information in Co-op's PHC. The Division's hydrologic assessment, which is based on the now admittedly flawed and inaccurate information, is not valid. The hydrologic terms and conditions of the permit cannot possibly be met as those terms and conditions are incorrect, flawed and do not meet the requirements of R645-303-233.110. The permit may not be renewed at this time.

POINT II

CO-OP IS INTERCEPTING AND RE-DIVERTING WATER THAT WOULD OTHERWISE PROVIDE FLOW TO OBJECTORS' SPRINGS AND THUS IS NOT COMPLYING WITH ENVIRONMENTAL PROTECTION STANDARDS

A second ground for non-renewal of the permit is the non-compliance with the environmental protection standards in the state program. In the area of hydrology, the relevant standards are to prevent material damage to the hydrologic balance outside the permit area (R645-300-133.400) and to replace any water rights that are affected in quantity or quality, (Utah Code Ann. § 40-10-18(15)(c) (1997).) As set forth below and at the informal conference, the non-compliance of Co-op with the relevant environmental protection standards was established by the Water Users.

A. The interconnection between water within the Bear Canyon Mine and Big Bear and Birch Springs was admitted.

At the informal conference an important fact was established. For the first time and in direct contravention of its statements at the time of renewal in 1990-1991, and at the significant review hearings, Co-op admitted it pumped vast quantities of water intercepted at the working face of the mine into a worked-out portion of the mine and elsewhere, during the 1989-1992 time period. See HT III. at 25; 250; 292. It was during this same time period that anomolously high flows and water quality problems were experienced in Big Bear and Birch Springs. The testimony of Charles Reynolds, Gaven Atwood and others substantiated these illegal actions. HT II. at 217-238; HT III. at 25. The import of this admission is that the hydrologic interconnection between the mine and the springs undisputably exists. In other words the water inside the mine can and does reach and feed the springs of Water Users.

B. **The groundwater system through the area of the Bear Canyon Mine is connected with the Recharge on Gentry Mountain and Big Bear and Birch Springs.**

Testimony at the hearing demonstrates that the Gentry Mountain groundwater system is interconnected. In his testimony, Mr. Peter Nielsen agreed that the interconnection between Birch Spring and the mine was demonstrated by the spike flow out of the spring when the mine water was being discharged out of the portals. HT II. at 129. According to Mr. Nielsen, this "shows the fractured nature of the system where you discharge out the portal into Dry Creek and you get peak flows several weeks or less than a week later in Birch Springs downgradient several thousand feet." HT II. at 130. Mr. Nielsen:

> identified a trend associated with that fracture in aerial photographs and also identified that same fracture zone in subsidence associated with Trail Canyon Mine in Dry Creek. So it's an interaction of discharging water on the surface going into the subsidence and interacting with any water in Trail Canyon, some volume of water in there probably saturating the system, saturating the fault and having some sort of failure, or simply recharging the zone.

HT. II. 131. Nielsen was able to conclude that there "is no difference in the recharge location" for the water from Birch Spring, Big Bear Spring and the mine -- all are recharged from snow pack on Gentry Mountain. HT II. 77. Significantly all experts who testified agreed that Gentry Mountain provides the recharge for both water in the mine and the springs.

C. **Activities in the Bear Canyon Mine which re-direct or contaminate water do not comply with Environmental Protection Standards.**

With the hydrologic interconnection between the mine and the springs established, the Division must conclude that activities which re-direct or contaminate water do not comply with Environmental Protection Standards of the Division in violation of R645-303-233.120. They also damage the hydrologic balance outside the permit area in violation of R645-301-750. As

was established at the Informal Conference, when the Bear Canyon Mine was first permitted, and during its early years, it was virtually dry. HT III. at 8. However, as mining proceeded to the north, significant and continuous flows of water were encountered and continue to be encountered today. As discussed above, this encountered water is hydrologically connected with Big Bear and Birch Springs.

POINT III

THE PHC CONTAINS FALSE AND INACCURATE STATEMENTS AND LACKS AN ADEQUATE AMOUNT OF BASELINE DATA, AND THE CHIA FAILS TO ADDRESS THE CUMULATIVE HYDROLOGIC IMPACTS OF MINING

A. The PHC Contains False and Inaccurate Statements

In addition to the revision of existing hydrologic information and theory provided by Mayo, there are numerous false and inaccurate statements in the PHC which also demonstrate its inaccuracy and unreliability.

Co-op has stated that the "volume of groundwater flow into the mine has only recently increased sufficiently to produce water in excess of that needed for mine operations." PHC at 2-33. This statement is a factual misrepresentation as we know Co-Op encountered at least 110 gpm of water in the 1st North section of the mine in the summer of 1989. This fact is evidenced by pages 3-1 and 3-2 of the Hydrogeologic Evaluation of the Bear Spring Mine Permit and Proposed Expansion Areas by Earthfax Engineering, Inc. dated March 11, 1991, which states:

> The East Bleeder inflow remained constant until the summer of 1989, when water was encountered at the northern end of the North Main entries. According to Wendell Owen, the mine intercepted a flow of about 110 gpm. This flow occurred mainly from fractures and roof bolt holes in the roof and has essentially remained constant since it was first encountered.

There are other documents that evidence water prior to 1991. The C.W. Mining Co. mine map dated December 1, 1989 Bear Canyon Plate 7-1A shows that Co-Op hit "Seeps/Drippers - 110 GPM" in the 1st North area on August 3, 1989 when this area was mined out. Each of Co-Op's mine maps from this time forward have shown this flow is continuing. For example, the Co-Op Mining Company Mine Water Survey Map, dated January 1, 1992 Plate 7-10A shows the 1st North area producing 120 gpm, and the 2nd East Bleeders area producing 252 gpm. Further, the Co-Op Mining Company Annual Report 1990, page A-14, shows that Station SBC-9, which is the first North area, produced flows of 120 gpm to 97 gpm during 1990.[2] The 1991 Annual Report states that Station SBC-9 produced from 81 to 140 gpm in 1991. This evidence clearly establishes that Co-Op hit major amounts of water in 1989.

An important question is presented as to what Co-Op did with all this water once it was encountered. According to the Co-Op Mining Company Annual Report for 1990 page A-2, the Total Water Usage for 1990 in the mine was 994,600 gallons (3.052 acre feet). This yields an average usage of 2,725 gallon per day. However, in the same report, they provided data relative to inflow in the 1st North area of the mine at a mean flow of 114.25 gpm for the year. Annual Report 1990 at A-14. The flow of 114.25 gpm is equal to 164,520 gallons per day or 60,049,800 gallons per year (184.3 acre feet). Thus, the difference between the water used and the water produced in 1990 is 59,055,200 (181 acre feet) -- where did this water go? That question, as well as where the water would have gone but for its interception must be answered before mining may continue and the lost water must be replaced.

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[2] This 1990 report was used because DOGM either does not have, or is unable to locate a 1989 annual report.

Co-Op began reporting a discharge from the mine on their discharge permit in April of 1991. During the 606 days from August 3, 1989 when they reported encountering water in the 1st North entry until April 1, 1991, 114.25 gpm or 164,520 gallons per day were produced, yet only 2,725 gallons per day were used on average. Where did the unaccounted 161,795 gallons per day or a total of 98,047,770 gallons (301 acre feet) produced during this time period disappear to? These questions are not answered by the mine permit as it fails to account for this water. Mine Dewatering § 7.1.4.3, page 7-32.

The answers to these questions were given in Mr. Gaven Atwood's testimony. In his testimony, Atwood disclosed that this water was pumped, without a permit, out of the west portals until October of 1989, ~~which the flow~~ of North Emery's Birch Spring. HT II. at 214-224. They also "breached" a seal that was installed in the old workings and pumped water into these workings. Id. at 221.[3] Pumping water into these old workings caused the icicle formation on the ledges above Big Bear Spring, and contaminated that spring.[4] See HT II. at 128, 169, 183, 221-228.

In addressing the surge in flow and contamination of the Big Bear Spring during the fall of 1989, Co-Op argued that "[t]he reason for this fluctuation is unknown." Revised Hydrogeologic Evaluation at 2-39. However, in an interoffice memo from Tom Munson, senior reclamation hydrologist, to Pamela Grubaugh-Litig, permit supervisor, dated May 17,

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[3] This testimony raises issue with a statement made in the PHC that "SBC-3 was damaged in 1990 and surface water began leaking into the well. In March 1992, SBC-3 was repaired and sealed." PHC at 2-13.

[4] Co-Op admitted during this hearing this event took place. Yet in the prior Blind Canyon Seam and in the Tank Seam hearings, they denied this and went to great lengths to try and prove that the ice formation was a common occurrence.

1991, Mr. Munson states:

> It has been discovered that mine water was pumped into old workings in the south end of the mine via a pressure relief valve set up on the in-mine pumping system . . .. Based on the information the Division has received from Co-op in response to its November 27th, 1990 Division Order, and a verification that the pumping system and set-up conducted on May 16th, 1991 by Jesse Kelley, the Division has made the following observations:
>
> > Pumping water into the old workings via the old pumping and piping system most probably had an effect on the water balance in the old workings causing a discharge to occur at the outcrop, potentially affecting Big Bear Spring.
>
> ***
>
> Based on the discovery of the pumping of water into the old workings and the documented increase in the flow in Big Bear Spring, the termination of pumping water into the old workings will hopefully solve the current quantity and quality abnormalities at Big Bear Spring.

(Munson Memo, 5/17/91).

Charles Reynolds admitted that during this time, "[water] was discharged into the old workings . . . . It was put into the old workings, and at the time it appeared there may be a potential, in fact the Division requested that cease and that was discontinued." HT I. at 26. Further, even though the evidence shows that Co-Op had knowledge, the PHC states that "[t]o date, no negative impacts to seeps or springs has been demonstrated." PHC 2-36. This is in addition to the material misrepresentations concerning these facts made to Dianne Nielson in the previous proceeding to secure the last renewal.

During the recent hearing, Earthfax presented flow data from Danielson on Big Bear Spring and Birch Spring in 1978, showing that the flow was only 110 gpm. HT II. 207. They used this data to attempt to argue that low flows of this magnitude were common to this spring and that the low flows during the last few years were to be expected.

It should be noted that the water years of 1977 and 1978 had the lowest ever recorded annual precipitation in that area. The preceding years were probable declining precipitation years as well. The normal trend at Big Bear Spring and Birch Spring would be for discharge to decline as well, as evidenced by Danielson's measurements from Little Bear Spring which show nearly record low values during the same time period. This suggests that the springs were dewatering aquifer storage.

It is interesting to note, however, that between 1979 to 1985 annual precipitation increased to above average and the discharge at the Springs also increased and followed the peak discharge pattern in one year. This response was not observed at Big Bear Spring and Birch Spring following the declining precipitation trend between 1985 and 1990 and the Spring has not recovered in the later years. Because Big Bear and Birch Springs have not recovered their flows in the same pattern as in 1978 through 1985,[5] one suspects that <u>something</u> has changed the aquifer storage, especially since the control spring, Little Bear, has returned to normal. That something is the mining operations of Co-op.[6]

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[5] This pre-mining baseline monitoring fact should have been in the original PHC, but is not.

[6] This is the same argument advanced by Richard White of Earthfax at the hearing when asked if he would agree with the statement made by Gregory Lines that "groundwater storage has been reduced around all water-producing mines in the area." HT III. 264. As to Bear Canyon Mine, Mr. White argued that:

> the storage is basically -- it's as though you have this bathtub. And so if you take something out of the bathtub, you've reduced the storage. So anytime water is discharged from the mine, something has been removed from storage.

HT III. 264.

B. The PHC Lacks Adequate Data To Establish The Baseline From Which Hydrological Consequences Are To Be Measured

The PHC is inherently deficient because it lacks sufficient baseline data, i.e., the quantity and quality of flow of surface and ground water, so that DOGM may assess the probable cumulative impacts and produce its CHIA. It is axiomatic that if the PHC is deficient, the CHIA would be deficient, and thus would result in an invalid permit.

Section 1257(b) (Submittal contents) of Title 30 of United States Code Annotated (§ 507(b) of SMCRA), provides:

> The permit application shall be submitted in a manner satisfactory to the regulatory authority and shall contain, among other things -
>
> . . .
>
> (11) a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime,[7] quantity and quality of water in surface and ground water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: Provided, however, That this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate Federal or State agency: Provided further, That the permit shall not be approved until such information is available and is incorporated into the application;

30 U.S.C.A. § 1257(b).

The history of SMCRA indicates that protection of the integrity of surface and ground-water resources from the potential adverse impacts of coal mining was one of SMCRA's major objectives. In passing SMCRA, Congress acknowledged several historical incidents in which

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[7] Hydrologic regime means the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

coal mining had deprived communities downstream from mining areas of the quantity and quality of water needed to sustain those communities. As Judge Flannery said in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990),

> [SMCRA] also reflects that harm to the environment can occur through accumulation of little things over a long time. At issue here is not just whether a dam will crack and burst after many years. The Act shows deep concern about changes to the quality of ground water and streams because of erosion or run-off that could take many years to come to full effect.

Id. at 20128. Therefore, in section 507(b)(11) of SMCRA, Congress required that the regulatory agency conduct "an assessment [of] the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability."

Under § 507(b)(11) of SMCRA, mining permit applicants are required to submit PHCs that focus and analyze the hydrologic effects of the mine and "adjacent areas." This has been interpreted by the Office of Surface Mining Reclamation and Enforcement, Department of the Interior, ("OSMRE"), and upheld by the courts[8] to require a "life-of-the-permit" analysis. On the other hand, a CHIA, which is the regulatory agency's duty, requires a more extensive "life-of-the-mine" analysis.

Under 30 C.F.R. § 784.14(e)(2) and R645-301-731.800 the PHC must provide "baseline hydrologic data," i.e., the quantity and quality of flow of surface and ground water. Furthermore, under § 507(b)(11) of SMCRA, the application must include sufficient data so

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[8] National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990).

that DOGM may assess the probable cumulative impacts and produce its CHIA.[9] "This information [baseline data] must be gathered and evaluated by the applicant to a degree that will reasonably assure the protection of the onsite and offsite environment and water rights of others in areas where adverse impacts may occur." 47 Fed. Reg. 27,712, 27,715 (June 25, 1982). The Utah Administrative Code also requires the permit application to include a plan that is specific to the local hydrologic conditions, contain steps to minimize disturbance to the hydrologic balance inside the permit area, prevent material damage outside the permit area, and includes "measures to be taken to protect or replace water rights and restore approximate premining recharge capacity." R645-301-731.

Without providing an in-depth review of the entire PHC, it is clear the baseline data of the PHC is insufficient. For example, Table 2-5 on page 2-10 of the PHC indicates that SBC-4 (Big Bear Spring) and SBC-5 (Birch Spring) were "not measured" between 1984 and 1991.[10] EarthFax's Figure 2-2 also does not show the geologic strata below the Mancos No. 1 formation in well DH-4, nor does it show any water in the Storrs formation from that well. Also, the PHC is not entirely clear how many samples were used by EarthFax to arrive at the figures it uses in most of its tables. For example, Tables 2-6 and 2-9 indicate that 8 quantity

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[9] The legislative history of SMCRA shows that the Senate added to § 507(b)(11) a requirement that the CHIA not be required until adequate hydrologic information was available on the general area and that the House responded with a proviso that the permit could not be approved until such information was available and incorporated into the permit. 53 Fed. Reg. 36,394, 36,396 (Sept. 19, 1988).

[10] Despite the Board's ruling in the Tank Seam proceeding that it was "convinced" that Co-Op's failure to measure flow rates at the inception of mining was "harmless," requisite baseline data needed to be more than reliance on Water User's records. Co-Op should have done studies to establish baseline data themselves.

and quality tests were made for Big Bear and Birch Springs in 1991. These tables indicate that a different number of samples were taken from the other monitoring sites and many of the tables do not indicate the number of samples taken in order to come up with the numbers.

The installation of the groundwater monitoring wells inside the mine, after they intercepted the large flows in 1989 does not constitute baseline data required under 30 C.F.R. § 784.14(e)(2), especially since that law was enacted before Co-Op started mining in the Bear Canyon Seam. The aquifers above and below that portion of the mine were likely dewatered before the groundwater monitoring wells were installed in the mine.

Further, the testimony of Gaven Atwood demonstrates some of the samples used may not represent actual water flow/quality conditions.[11] Atwood personally witnessed many instances where oil and grease got into the mine water, including a time when they blew a main and within two minutes it poured out 250 gallons of oil. HT II. 225. He also testified that mine workers would urinate and defecate inside the mine.[12] Despite these facts, the PHC neither included an analysis of the water quality impacts of fecal coliform, nor a plan to deal with spontaneous high volume discharges of hydrocarbons. PHC at 2-37. The end result was the contamination of Water User's springs by mine operations.

The point is that in order to gauge the probable and cumulative impacts of future mining in an area, an adequate baseline study must be and was required to be performed.

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[11] Atwood testified that on the second day he worked at the mine, he was told to take a water sample for DOGM. Atwood collected the sample of "really good drinking water" from a drip in the roof, although the sample was supposed to come from the well that sits outside the discharge point. HT II. at 228.

[12] The fact that approximately sixty people per day work in the mine indicates much fecal coliform is produced.

Because insufficient data was collected and arrayed, Co-Op must be required to provide more information on the hydrology of the mine area:

> When existing wells are not sufficient in number or location to provide an accurate description of baseline conditions, §§ 780.21(b)(2) and 784.14(b)(2) would allow the regulatory authority to require drilling of new or additional monitoring wells and to require that necessary additional information be provided.

47 Fed. Reg. 27,712, 27,715 (June 25, 1982). Additional monitoring wells for more extensive monitoring would also provide the DOGM with an "early warning system," which may meet some of Water User's concerns. Also, groundwater monitoring is usually based on the baseline data. To the extent that baseline information is inadequate, ongoing monitoring should be more extensive to make up for the inadequate baseline information.

C. The CHIA Fails To Adequately Address The Cumulative Hydrologic Impact Of Mining On Water Availability To The Areas Within Which Impacts From The Mining May Occur

Because the PHC did not include the quantum of information about the hydrogeology of the area necessary for the DOGM to prepare the CHIA, a permit cannot be approved until adequate information is available and incorporated into the permit. See footnote 9. If this information is not available:

> then the regulatory authority must delay issuance of the permit until either the necessary information is available for an appropriate federal or state agency or is collected and incorporated into the permit application by the applicant.

53 Fed. Reg. 36,394, 36,398 (Sept. 19, 1988). Thus, if the information available regarding the hydrology of the mine area is insufficient for the CHIA, the applicant must provide that data. Because the Co-Op PHC did not contain this information, the CHIA analysis was inadequate and mining must cease.

1. The CHIA erroneously excludes an assessment of impacts of mining on the availability of water in the service areas of Water Users.

The CHIA is required to assess the impacts in the "cumulative impact area" ("CIA"). The CHIA gives an exhaustive, 2-page inventory of the indigenous plant species within the currently-defined Gentry Mountain CIA, yet ignores the human populations who rely on the water coming from that area. CHIA, I. Introduction.

Section 701.5 of 30 C.F.R. defines, "cumulative impact area" to mean the area "within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface and ground-water systems." This, coupled with the § 507(b)(11) requirement that the CHIA assess "water availability" leads to the conclusion that the service areas of Water Users should be included in the CIA. However, the current "southern and eastern boundaries [of the Gentry Mountain CIA] are defined by T16S/T17S and R8E/R9E SLBM, respectively." CHIA, II. Cumulative Impact Area. This covers an area of approximately 112 square miles.[13] This CIA eliminates an assessment of the hydrologic impacts of mining and water availability on the downstream communities of Huntington and Cleveland. By excluding these areas, the CHIA fails to meet the purpose of § 507(b)(11) that the CHIA assess hydrologic impacts, "particularly upon water availability."

[13] The preamble to the rule proposing the definition of the CIA states, "the cumulative impact area would be defined to mean, with respect to assessment of the probable cumulative hydrologic impacts of mining, the surface and ground-water basin(s), . . . which may have a cumulative hydrologic impact with the proposed operation. . . . The precise areal extent of the cumulative impact area would be defined, on a permit-by-permit basis . . . ." 47 Fed. Reg. 27,712, 27,714 (June 25, 1982).

2. The CHIA inadequately addresses hydrologic impacts of mining on the availability of water to the service areas of Water Users.

Because the CIA excludes the service area of Water Users, the CHIA is rendered inadequate. Under 30 C.F.R. § 784.14(f), the CHIA is required to be sufficient to determine the probable cumulative impact to the hydrologic balance outside the permit area, i.e., the service areas. As a review of the CHIA indicates, no analysis of water availability has been done for these areas.

It may not be argued that water availability of downstream users is not affected by mining in the Gentry Mountain area. The five mines listed in the CHIA--Bear Canyon, Deer Creek Mine Waste Rock Storage Facility, Hiawatha Mines Complex, Star Point Mines, and Trail Canyon Mines--all "consume" groundwater that would eventually make its way, one way or another, to those downstream communities. The CHIA's assessments of impacts of mining on water availability is very sparse. In this regard, the Gentry Mountain CHIA merely concludes, "approximately 630 gpm are consumptively lost to mine ventilation (80 gpm) and evaporation at coal preparation facilities (545 gpm)" and "An upper limit of 20 years has been estimated for complete flooding of workings and re-establishment of the premining ground water system." CHIA, VI. Summary. The CIA and CHIA must be completed per the requirements of law before mining may continue.[14]

3. An inadequate CHIA raises the question of whether the permit has been legally issued or renewed.

The inadequacies of the CHIA make a comparison of PHCs on proposed mining

[14] As all of Huntington Creek is still appropriated water, this water must be replaced pursuant to § 40-10-18(15)(c).

operations with the CHIA inadequate as well. In defending the PHC and CHIA requirements to the district court, the Secretary of the Interior argued in National Wildlife Federation v. Lujan, 21 Envtl. L. Rep. 20,125 (D.D.C. 1990), that:

> [A]t its option, the operator may submit additional data to assist the regulatory authority in drawing up the CHIA. Implicit in this suggestion is the view that the operator almost has to submit such data, because if the regulatory authority cannot put together a CHIA, it may not issue a permit. See SMCRA s 507(b)(11), 30 U.S.C.A. s 1257(b)(11) (CHIA not required until hydrologic information made available by federal or state agency, but permit shall not be approved until information available and incorporated into the application) (See NWF v. Hodel, 839 F.2d at 758, construing statute in this manner.)

Under this analysis, the original permit and the current permit renewal should not have been granted until there was sufficient information on water availability and hydrology to prepare and incorporate into the CHIA. As is discussed above, DOGM must review the PHC with a revision of the CHIA and the areal extent of the CIA in mind.

4. The CHIA's findings are inadequate.

Finally, the CHIA's findings are inadequate. Under 30 C.F.R. § 784.14(f), and R645-301-729.100 "[t]he CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation[s] [have] been designed to prevent material damage to the hydrologic balance outside the permit area." In this regard, the CHIA simply concludes: "[t]he designs proposed for all anticipated mining operations within the CIA are herein determined to be consistent with preventing damage to the hydrologic balance outside the proposed mine plain areas." CHIA, VI. Summary. This is merely an inadequate, misstatement of the applicable standard for a CHIA. Thus, DOGM must re-visit its Gentry Mountain CHIA and CIA for the purposes of bringing it into compliance with § 507(b)(11) of SMCRA. As part of that process, the CIA must be enlarged beyond its current border of T16S/T17S and

R8E/R9E SLBM to include the areas served by Water Users.

POINT IV.

The arguments below address the issues requested by the Division in its March 25, 1997 letter.

A. UNDER R645-301-750 CO-OP IS REQUIRED TO EITHER AMEND ITS PLAN OF OPERATIONS OR MAKE REPARATIONS FOR DAMAGES CAUSED IF IT CAN BE DEMONSTRATED THAT THE MINING HAS ANY HYDROLOGIC EFFECT

The performance standards of R645-301-750 provide:

> All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area . . .

R645-301-750 does not address the quantity of effect that must be demonstrated to require an operator to amend its plan or make reparations. The omission of language concerning amount or level of disturbance is evidence that the amount of hydrologic effect is not an issue. Further, there are many other provisions in the rules that imply the intent was to mandate this requirement where any hydrologic effect can be shown. Of course, in this case any water diverted in a manner that reduces Water Users vested water rights is a material impairment and damage. The fact is that hundreds of acre feet are missing.

For example, R645-301-731 states that the "plan will specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under R645-301-728 and will include preventative and remedial measures." Further, R645-300-148 states that the permittee will provide "[a]ny new information needed to correct or update the

information previously submitted to the Division by the permittee under R645-301-112.300."[15] R645-300-148.100. This implies that if any new hydrologic effect is demonstrated it must be addressed by the PHC, even if there is only a potential effect. Of course here we have actual effects.

The Water Users have demonstrated at this hearing and Co-Op admitted, that there was a surge in quantity and decrease in quality of the spring water during the time that Co-Op pumped water into the old workings. That means the mine workings are interconnected with the Springs and are intercepting Spring recharge water. It is undisputed that Water Users springs have not recovered their historic flows and the testimony and exhibits introduced support that conclusion. Thus, the injury is actual, material and continuing, and the Division must minimize this disturbance and prevent any further damage.

B. THE DIVISION MAY ORDER WATER REPLACEMENT AS A REMEDY THAT IS CURRENTLY AVAILABLE AND CO-OP IS REQUIRED TO REPLACE WATER IT CONTAMINATED, DIMINISHED, AND/OR INTERRUPTED

1. The Division May Order Water Replacement As A Remedy That Is Currently Available

Even though the Board has not yet promulgated underground water replacement rules under the recently enacted amendments to the Utah Coal Regulatory Program, as an administrative matter, an order of water replacement is a remedy currently available to the Division. The Surface Mining Control and Reclamation Act of 1977 gives primary responsibility for developing, authorizing, issuing, and enforcing regulations rested with the

[15] This provision applies to instances where cessation has been ordered and is presented here only to illustrate intent.

states. 30 U.S.C. § 1201(f). State laws and regulations must be consistent with, and at least as stringent as, federal law or else the state risks federal intervention, withdrawal of program approval, and loss of primacy. 30 U.S.C. §§ 1211, 1253, and 1255. Congress revised SMCRA (Public Law 95-87) in section 2504 of the Energy Policy Act of 1992 by adding section 720 (1309a). Pub.L. 102-486, 106 Stat. 2776 (1992). Section 1309a of SMCRA requires underground mining operations to:

> promptly replace any drinking, domestic, or residential water supply of a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

30 U.S.C. § 1309a(a)(2). The Office of Surface Mining Reclamation and Enforcement promulgated a final rule implementing section 1309a and adding "Probable-Hydrologic-Consequence" and water replacement requirements to 30 C.F.R. §§ 701.5, 784.14, and 817.41. 60 Fed. Reg. 16722 (March 31, 1995).

Since 1979, Utah has required that:

> The operator of a surface coal mine shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use form an underground or surface source where this supply has been affected by contamination, diminution, or interruption proximately resulting from the surface coal mine operation.

Utah Code Ann. § 40-10-29(2) (1979). The 1997 amendments expand this requirement to underground mining to coincide with and abide by federal law. Further, Rule R645-301-731.800 of the Utah Administrative Code mirrors the language of the Utah Code. Even Mr. Hansen, counsel for Co-Op, acknowledged before Chairman Lauriski that the requirement to replace water is:

> nothing new, it's written into the current regulations. R645-301-731 requires Co-Op's plan to include measures to be taken to protect or replace water rights and . . . [a]lso require Co-Op mine to replace any water that's contaminated or lost.

Transcript of Hearing on Tank Seam, 10/25/94 at 26.

Co-Op cannot now argue that replacement is not required. For replacement to be a viable option, however, a source must be identified and be available before interruption occurs. That is not the case now and is an issue that must be resolved before the permit may be renewed.

2. CO-OP Is Required To Replace The Water That It Contaminated, Diminished, And Interrupted

Co-Op is required to replace any water that has been contaminated, diminished or interrupted -- regardless of the quantity affected. Utah Code Annotated Section 40-10-18(15) provides:

> (c) Subject to the provisions of Section 40-10-29, the permittee shall promptly replace any state-appropriated water in existence prior to the application for a surface coal mining reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations.

Utah Code Ann. § 40-10-18(15) (1997).

The rule of *de minimus non curat lex* has no application to this determination. That rule is reserved for circumstances where the harm caused, the potential that the harm will occur, or the injury suffered by the occurrence would be so minor that the law need not be concerned. Utah courts recognize, and strongly protect the rights of water owners. This is illustrated by the Utah Supreme Court's disapproval of the statement made in a State Engineer's decision that there could be a "de minimus" decrease of the water reaching the lower users "with which the

courts will not be concerned." Piute Reservoir & Irrigation Co. v. West Panguitch Irr. & Reservoir Co., 367 P.2d 855 (Utah 1962) (holding that a change should not be allowed to operate without affirmative proof that the rights of the lower water users were not thereby impaired). Furthermore, Utah has adopted a strict liability standard for interference with water. Morgan v. Quailbrook Condominium Company, 704 P.2d 573 (Utah 1985) (instruction on interference with water properly phrased in terms of strict liability citing water scarcity rationale of Branch v. Western Petroleum, Inc., 657 P.2d 267 (Utah 1982)).

In this case, the Water Users are the owners and purveyors of the water rights in Birch Spring and Big Bear Spring. These springs are major drinking water sources for Northern Emery County. Evidence adduced at the hearings revealed that Co-Op's mining operations have affected these springs through loss of hundreds of acre feet. The actions of Co-Op have destroyed the historic return flow patterns and consume groundwater which would have eventually made its way to Water User's springs. Without replacement water, the Water Users' ability to provide a safe and consistent water supply to their constituents is severely threatened. Thus, rule of de minimus non curat lex does not apply, and Co-Op should be strictly liable for any contamination, diminution or interruption of the Water Users' springs under the mandates of R645-301-727. They should be ordered to replace the water they have intercepted.

Where the "de minimus" rule does not apply, the amount of impact is irrelevant. However, even if the Division finds that the rule could apply to cases involving such an important resource, it would not apply in this case. The impact on the Springs occurring simultaneously with Co-Op's discharge of excess mine water into the old workings (the

"event") was extensive and continuing, and its significance is great. The current flows from the springs are a reduction of hundreds of acre feet from the historical flows. Furthermore, Water Users submit that another significance of the "event" was that it established that there is in fact a relationship between the activities occurring in the mine and the quantity and quality of water at their springs. Certainly the continuing potential for an impact of unknown magnitude cannot be considered de minimus.

CONCLUSION

The informal conference has uncovered the flawed and inaccurate nature of the PHC, CHIA and CIA, which is the hydrologic information upon which the Permit is based. It has also demonstrated the material misrepresentations upon which the previous permit renewal was based. Co-op must not be allowed to profit from such behavior. Finally, the need for immediate replacement of water and the need for identification of future replacement sources has been amply demonstrated.

Dated this 8th day of May, 1997.

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CERTIFICATE OF SERVICE

I hereby certify that on this 8 day of May, 1997, I have caused to be sent, through the United States mail, first-class, postage prepaid, a true and correct copy of the foregoing OBJECTORS' JOINT POST-INFORMAL MEMORANDUM addressed as follows:

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